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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,356	03/16/2004	Johan Loccufier	27500-202	2124

7590 04/15/2008  
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Greenville, SC 29603

EXAMINER

SHEWAREGED, BETTELHEIM

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

04/15/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/801,356

**Applicant(s)**

LOCCUFIER ET AL.

**Examiner**

Betelhem Shewareged

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 10-13 and 27-43 is/are pending in the application.
- 4a) Of the above claim(s) 10-13 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 27-31 is/are allowed.
- 6) ☒ Claim(s) 32-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's response along with the Request for Continued Examination (RCE) filed on 03/24/2008 has been fully considered. Claims 8, 9 and 14-26 are canceled, claims 32-43 are added, and claims 1-7, 10-13 and 27-43 are pending. Currently, claims 10-13 are withdrawn from consideration as non-elected invention.

### *Claim Rejections - 35 USC § 102*

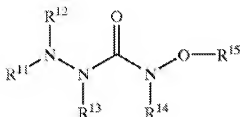
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 32-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Sumioka et al. (US 2003/0072923 A1).

4. Sumioka teaches an ink jet recording material comprising a support and an ink receptive layer on the support (abstract). The ink receptive layer comprises inorganic particles such as silica, alumina and alumina hydrate [0017], a binder such as polyvinyl alcohol [0023] and a compound of formula II [0033]. The compound of formula II meets the claimed non-polymeric compound. For example, compounds 31, 33 and 37 in page 6 meet the claimed non-polymeric compound. As an additional example see the following compound in the reference:



wherein

R<sup>14</sup> = R<sup>15</sup> = hydrogen;

R<sup>13</sup> = hydrogen or aliphatic; and

R<sup>11</sup> and R<sup>12</sup> form a heterocyclic ring by bonding to each other [0034].

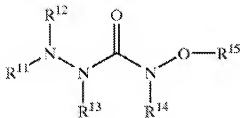
5. Examples of the heterocyclic group formed by combining R<sup>11</sup> and R<sup>12</sup> to each other includes a pyrazine ring (which is a 6-membered ring) and a 1,2,4-triazole ring (which is a 5-membered ring) [0035]. The compounds of formula II meet the claimed compound when R<sup>8</sup> is hydrogen and R<sup>9</sup> is substituted or unsubstituted aromatic rings.

6. Claims 38-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Sumioka et al. (US 2003/0072923 A1).

7. Sumioka teaches an ink jet recording material comprising a support and an ink receptive layer on the support (abstract). The ink receptive layer comprises inorganic particles such as silica, alumina and alumina hydrate [0017], a binder such as polyvinyl alcohol [0023] and a compound of formula II [0033]. The compound of formula II meets the claimed non-polymeric compound. For example, compound 37 meets the claimed

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non-polymeric compound. As an additional example see the following compound in the reference:



wherein

R<sup>14</sup> = R<sup>15</sup> = hydrogen,

R<sup>13</sup> = aliphatic; and

R<sup>11</sup> and R<sup>12</sup> form a heterocyclic ring by bonding to each other [0034].

8. Examples of the heterocyclic group formed by combining R<sup>11</sup> and R<sup>12</sup> to each other includes a pyrrolidine ring (which is a 5-membered ring), a piperidine ring (which is a 6-membered ring), a pyrazine ring (which is a 6-membered ring), a morpholine ring (which is a 6-membered ring), and a 1,2,4-triazole ring (which is a 5-membered ring) [0035]. The compounds of formula II meet the claimed compound when R<sup>8</sup> is unsubstituted saturated or unsaturated aliphatic groups, and R<sup>9</sup> is substituted or unsubstituted aromatic or heterocyclic ring.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 32-43 have been considered but are moot in view of the new ground(s) of rejection.

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***Allowable Subject Matter***

10. Claims 1-7 and 27-31 are allowed. The reference of Sumioka does not teach the claimed non-polymeric compound as recited in claims 1 and 7, (i.e., the compounds of Sumioka have the additional –NR group between the carboxyl group and the remainder of the molecule).

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on Mon.-Fri. 8:00AM-4:30PM.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BS  
April 11, 2008.

/Betelhem Shewareged/  
Primary Examiner, Art Unit 1794